ASOS MODIFICATION NOTE 62 (for Electronics Technicians)
Engineering Division
W/OSO321:BGM

SUBJECT	:	Replacement Data Collection Platform (DCP) Circuit Breaker for the Tipping Bucket (TB)
PURPOSE	:	The TB circuit breaker located in the DCP is an underrated 3-AMP circuit breaker and is being replaced with a 6-AMP circuit breaker.
EQUIPMENT AFFECTED	:	Automated Surface Observing System (ASOS) Data Collection Platform Unit(s) 2, 3, and 4 and Single Cabinet Assembly (SCA)
PARTS REQUIRED	:	6-AMP circuit breaker P/N 62828-90037-4 (1 each) Adhesive identification label 62828-40155-110 (1 each)
MOD PROCUREMENT	:	The above parts will be provided and initial issued by Washington Central Support.
EFFECTIVITY	:	All ASOS sites with a TB
SPECIAL TOOLS REQUIRED	:	None
TIME REQUIRED	:	1 hour
EFFECT ON OTHER INSTRUCTIONS	:	None
CERTIFICATION STATEMENT	:	This modification was tested by the Eastern Region.

General

The DCP 3-AMP heater circuit breaker for the TB is undersized and keeps tripping in cold climates when the heaters are turned on. The TB circuit breaker only provides circuit protection for the heaters in the TB. Replacing the 3-AMP rated circuit breaker with a 6-AMP circuit breaker is necessary to eliminate nuisance tripping of the circuit breaker during abnormal power line conditions. This circuit breaker is used on either the DCP or the SCA. This modification note does not apply to the ASOS Class I reduced compatible configuration. Use the appropriate DCP or SCA installation procedure. The new 6-AMP circuit breaker will be stocked at the National Logistic Support Center and initial issued to the field to replace the 3-AMP circuit breaker.

Procedure

Follow the installation instructions for the DCP modification:

WARNING

Ensure the AC power is completely removed from the DCP. DEATH OR SEVERE INJURY may result if power is not completely removed from the DCP prior to starting work on this modification.

CAUTION

Ensure the uninterruptible power supply (UPS) power switch is set to **OFF** (0 position) and the facility power is removed.

STEP

1. Remove the TB circuit breaker module A1A3A5, using the Power Control Module Removal and Installation procedure, contained in table 3.5.23, of the ASOS Site Technical Manual (STM), page 3-118, steps 1-7.

2. Remove and retain the fastener hardware holding the heater circuit breaker CB-2 in the module.

3. Remove the terminated wires attached to the line and load the CB-2 circuit breaker terminals.

4. Install the new part number label over the old module part number marking.

5. Install the new circuit breaker (62828-90037-4) in the heater circuit breaker CB-2 position of the module using the fastener hardware retained in step 2.

6. Connect the terminated wire marked CB-2-LINE to the circuit breaker load terminal.

7. Connect the terminated wire marked CB-2-LOAD to the circuit breaker load terminal.

8. Install the TB circuit breaker module A1A3A5, in the DP., as described in table 3.5.23 installation instructions, of the STM-100, found on page 3-118, steps 5-10.

9. Set the TB heater circuit breaker 2A1A3A5CB2 to **ON** (left position).

10. Close and secure the DCP.

11. At the operator interface device (OID), clear all maintenance failures caused by installing the modification. Make a SYSLOG entry indicating the TB heater circuit breaker modification has been installed.

Procedure

Follow the installation instructions for the SCA modification:

WARNING

Ensure the AC power is completely removed from the SCA. DEATH OR SEVERE INJURY may result if power is not completely removed from the SCA prior to starting work on this modification.

STEP

1. Open the SCA cabinet and turn the UPS power **OFF** (0 position) and turn **OFF** the main power circuit breaker 7A1A1A3CB21.

2. Turn **OFF** the facility power to the SCA by setting the SCA circuit breaker in the AC junction box to **OFF**.

3. Disconnect the primary OID cable located on the circuit breaker panel 7A1A1A3.

4. Remove the six Phillips head screws (retain fastener hardware) holding the circuit breaker panel rack 7A1A1A3 in place.

5. Remove and retain the fastener hardware holding the circuit breaker labeled **4H CB8** in the panel.

6. Remove the terminated wires connected to the line and load terminals of the circuit breaker **4H CB8.**

7. Install the new circuit breaker (62828-90037-4) in the **4H CB8** position of the circuit breaker panel rack, using the fastener hardware retained in step 5. The part number label provided is not used in the SCA.

8. Connect the terminated wire marked A3CB8-LINE to the circuit breaker line terminal.

9. Connect the terminated wire marked A3CB8-LOAD to the circuit breaker load terminal.

10. Install the circuit breaker panel rack 7A1A1A3 in the SCA using the fastener hardware retained in step 4.

11. Connect the primary OID cable that was disconnected in step 3.

12. Apply the facility power to SCA by setting the SCA circuit breaker in the AC junction box to **ON**.

13. Turn the SCA main power circuit breaker 7A1A1A3CB21 ON. Turn the UPS power **ON** (1 position). Set the TB heater circuit breaker 7A1A1A3 4H CB8 to **ON** (left position). Close and secure the SCA.

14. At the OID, clear all maintenance failures caused by installing the modification. Make a SYSLOG entry indicating that the TB heater circuit breaker modification has been installed.

Reporting Modification

Target date of this modification is December 15, 1999. Report the completed modification on a National Weather Service (NWS) Form A-26, Maintenance Record, per instructions in Engineering Handbook No. 4, (EHB-4) Engineering Management Reporting System (EMRS), part 2, appendix F, using reporting code ADCP. Refer to appendix B for a completed sample of NWS Form A-26, Maintenance Record.

John McNulty
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W/OSO321:B.McCormick:713-1833x120
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